

**Air Pollution Control District
Jefferson County, Ky
4 March 2001**

TITLE V PERMIT SUMMARY

Company: General Electric Company

Plant Location: Appliance Park, Louisville, Kentucky 40225

Date App. Received: 21 April 1997

Date Admin. Complete: 21 April 97

Date of Draft Permit: 4 March 2001

Date of Proposed Permit: ## XXXXXX 2001

District Engineer: John Bartles

Permit No.: 155-97-TV

Plant ID: 0870

SIC Code: 3634

NAICS: 33522

AFS: 00870

Introduction:

This permit will be issued pursuant to: (1) District Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM), particulate matter less than 10 microns (PM₁₀), and lead (Pb); unclassifiable for particulate matter less than 2.5 microns (PM_{2.5}); and is a moderate non-attainment area for ozone (O₃).

Application Type/Permit Activity:

- ☒ Initial Issuance
- ☐ Permit Revision
 - ☐ Administrative
 - ☐ Minor
 - ☐ Significant
- ☐ Permit Renewal

Compliance Summary:

- ☒ Compliance certification signed
- ☐ Compliance schedule included
- ☐ Source is out of compliance

I. Source Description

1. **Class I Area Impacts:** This source is not located in or near a Class I area.
2. **Product Description:** The source manufactures home laundry appliances, dishwashers, ranges, and refrigerators.
3. **Overall Process Description:** Th source receives raw steel sheet, coated steel sheet, tubing, drives, motors, and other assorted paint, chemicals, and hardware from which it manufactures and assembles major home appliances.
4. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
5. **Emission Unit Summary:**
 - a. **Metal parts coating:** (U01; U30; U40; U42; U55; and U65) Parts to be coated receive a prime coat and a finish coat which may be powder porcelain, enamel, powder paint, or vinyl which is applied to dishwasher racks. Pollutants emitted are VOCs and PM. 40 CFR 60 Subpart SS does not apply to powder coatings, pursuant to section 60.451.
 - d. **Cure and dryoff ovens:** (U01, U30, and U65) These ovens are used to dry metal parts after washing and to dry, cure, or bake paint. Emissions are PM, VOCs, and NO_x. The District has agreed with the source's NO_x RACT assessment that all appliance coating oven and furnace NO_x emissions are insignificant and not subject to xNO RACT requirements in Regulation 6.42.
 - e. **Storage tanks:** (U87, U89, and U90) Storage tanks are used throughout the plant to store gasoline, paint, solvents, and foam constituents.
 - f. **Boilers and related systems:** (U74 through U76; and U78 through U82) Boilers #1 through #5 are coal-fired. Boiler # 6 is landfill gas-fired with a natural gas backup system. Boiler #7 is natural gas-fired. Steam from the boilers is used primarily for space and process heat. Ash is pneumatically conveyed to a silo where it is mixed with water and removed by rail.
 - g. **Lime silo filling:** (U91) Lime used in the stabilization of sewage sludge is pneumatically conveyed to and from the silo with the conveying air routed through a fabric filter.
6. **Fugitive Sources:** None of significance, i.e., none subject to a NESHAP, etc.
7. **Title V Major Source Status by Pollutant:**

Pollutant	Actual Emissions (tpy) 1999 Data	Major Source Status (based on PTE)
CO	Negligible	No
NO _x	294.7	Yes
SO ₂	453.6	Yes
PM	71.2	Yes
VOCs	62.7	Yes
Single HAP (> 1 tpy)		
Hydrochloric acid	18.9	Yes
Hydrofluoric acid	2.3	No
Styrene	1.8	No
Toluene	1.6	No
Xylenes	2.3	No
Glycol ethers	8.3	Yes
Total HAPs (VOC and Non-VOC)	37.8	Yes

8. Applicable Requirements:

☐ PSD ☒ NSPS ☒ SIP ☐ NSR ☐ NESHAPS
☒ District-Origin ☐ MACT ☐ Other

II. Regulatory Analysis

- Emission and Operating Caps:** A 1979 SIP agreement limiting plant-wide VOC emissions to 979 tons of total hydrocarbons.

On 25 September 1979 the source submitted a detailed compliance plan and schedule to bring it into compliance with Regulation 6.16. The compliance plan was formally approved by the District on 20 February 1980 and incorporated into a Board Order on 20 August 1980.

The Board Order includes a time schedule listing actions to be taken for reducing emissions on specific pieces of equipment and specifies the quantity of emissions to be reduced for each. The order called for a reduction of total hydrocarbons from 4937 tons to a limit of 979 tons by 31 December 1992.

On 15 October 1991 the source submitted, at the request of the District, a revised Plant Emission Plan. The revised plan served to account for equipment which had either been removed or replaced and reflect the change in terminology and definition of organic material from Total Hydrocarbons (THC) to Volatile Organic Compounds (VOC).

The sum of all VOC emissions listed in the new plan was 921.31 tons per year, accounting for the elimination of THCs which did not fit the definition of Volatile Organic Compounds. Those emissions not fitting the new definition were banked.

Since the October 1991 submittal, the source has changed and eliminated processes to the extent they retain only 6 of the original 47 listed, for a total of 48.22 tons of VOC emissions; therefore, the Board Order and Plant Emission Plan no longer serve any purpose and have been eliminated from the Title V permit.

2. **Compliance Status:** The source signed and submitted a Title V compliance certification in its permit application.
3. **Operational Flexibility:** The source did not request to operate under alternative operating scenarios in its Title V Permit Application.
4. **Testing Requirements:** The source's NO_x RACT includes required testing.
5. **Monitoring, Record Keeping and Reporting Requirements:** The source is required to monitor, maintain records of, and report on various operating parameters to demonstrate ongoing compliance with all applicable requirements. Compliance reporting is required semi-annually, except where underlying applicable regulations or permit conditions require more frequent reporting.

Monitoring, record keeping, and reporting are required for the following:

- A. **Opacity:** Certain Emission Units require a Permit Condition to monitor compliance with the opacity standard. The frequency of monitoring was chosen on the basis that most of these Units do not have a record of non-compliance and do not operate close to the standard. More frequent monitoring is required for the coal-fired boilers. The source is required to initiate corrective action within 8 hours if visible emissions are observed during the survey. A Method 9 test is required if visible emissions persist. The periodic surveys coupled with Method 9 tests, if necessary, should be adequate monitoring to reasonably assure the source meets the opacity standards.
- B. **VOC:** Periodic monitoring for the Emission Units with VOC emissions, consists of record keeping and parametric monitoring. In some Emission Units, Regulations 1.05 and 6.16 are adequate for VOC tracking, particularly for those Emission Units having a phosphating process, as these have been demonstrated to have minimal emissions (a surfactant is added to the baths).
- C. **PM:** Periodic monitoring for the emission units with particulate emissions consists of record keeping and parametric monitoring.

Monitoring, record keeping, and reporting are not required for the following:

- A. Powder coating processes, as these are self-contained systems that do not vent outdoors.

B. PM (and opacity) emissions from phosphating processes, as these emissions are negligible.

6. Off-Permit Documents: A RMP (Risk Management Plan), submitted on 18 June 1999.

The District considers an “off-permit document” as a document on which a source’s compliance with given regulation(s) is contingent or which contains regulatory requirement(s), but is only referenced in a source’s Title V Operating Permit. The designation “off-permit document” shall be made at the District’s discretion, and may include, but not be limited to, documents such as Regulation 1.05 VOC compliance plans, PMPs, MOCS; or other documents which are too voluminous to be included in a source’s Title V Operating Permit, as determined by the District.

III. Other Requirements

- 1. Temporary Facilities:** The source did not request to operate any temporary facilities.
- 2. Short Term Activities:** The source did not report any short term activities.
- 3. Compliance Schedule/Progress Reports:** The source has certified compliance with all applicable requirements; therefore, no compliance schedule or progress reports are necessary.
- 4. Emissions Trading:** The source participates in emissions trading, and has an existing Emissions Bank credit of 180.70 tons for PM.
- 5. Acid Rain Requirements:** The source is not subject to the Acid Rain Program.
- 6. Stratospheric Ozone Protection Requirements:** Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source’s only use of listed chemicals is that for fire extinguishing. Additionally, in 1995, the source voluntarily substituted a high ozone depleting with a low ozone depleting compound in its refrigerator foaming operation under a "pollution control project" which received formal EPA approval on 1 May 1995.
- 7. Prevention of Accidental Releases 112(r):** The source does use, store, or otherwise handle one of the regulated substances listed in 40 CFR 68 Subpart F and Regulation 5.15, Chemical Accident Prevention Provisions, in a quantity in excess of the corresponding specified threshold amount. The regulated substance is toluene 2,4 di-isocyanate (TDI) for which a Risk Management Plan (RMP) was submitted to the District on 18 June 1999.
- 8. Toxic Air Pollutants:** The source does not currently emit any TAP in excess of the adjusted significance level as referenced by Regulations 5.11 and 5.12.
- 9. State Implementation Plan:** In 1979 an agreement was reached between the source and the District and incorporated into the State Implementation Plan, stating that the source would

not emit more than 979 tons of THC's per year. In later years the definition of THC was changed to eliminate some non-photochemically reactive hydrocarbons and the term THC was replaced with VOC.

In 1991 the original SIP agreement was revisited, by the District and the company, to address the changes in definitions and terminologies and to identify the sources of VOC emissions and establish local operating permit practicable limits for each. This was accomplished by assigning an annual emissions cap to each permit governing a VOC emitting process.

In the process of updating technology to meet environmental and competitive concerns, the source has replaced or abandoned most of the processes listed in the 1991 SIP update while reducing VOC emissions well below the 979 ton plant-wide limit.

- 10. Insignificant Activities:** The following activities, as referenced in the source's Title V Permit Application, have been determined by the District to be insignificant.

INSIGNIFICANT ACTIVITIES		
Description	Quantity	Basis
VOC storage tanks <250 gal capacity	Various	Regulation 2.02, section 2.3.24
Fuel or lubricating oils; VP <10 mm Hg	Various	Regulation 2.02, section 2.3.9.2
Portable gasoline or diesel storage tanks <500 gal	Various	Regulation 2.02, section 2.3.23
Combustion sources <10 mm Btu/hr	Various	Regulation 2.02, section 2.1.1
Fuel oil or diesel tanks; annual turnover <2 times capacity	1	Regulation 2.02, section 2.3.25
Internal combustion engines, fixed or mobile	Various	Regulation 2.02, section 2.2
Presses extruding metal/mineral/wood	Various	Regulation 2.02, section 2.3.1
Brazing, soldering, or welding equipment	Various	Regulation 2.02, section 2.3.4
Woodworking, except for conveying, hogging, or burning wood/sawdust	Various	Regulation 2.02, section 2.3.5
Resin curing ovens	Various	Regulation 2.02, section 2.3.7
Plastics compression or injection molding	Various	Regulation 2.02, section 2.3.8

INSIGNIFICANT ACTIVITIES		
Description	Quantity	Basis
Dipping operations - oils, waxes, or grease	Various	Regulation 2.02, section 2.3.9.1
Emergency relief vents - non-regulated process	Various	Regulation 2.02, section 2.3.10
Lab venting and exhausting	Various	Regulation 2.02, section 2.3.11
Vent systems restaurants and bakeries	Various	Regulation 2.02, section 2.3.12
Blast cleaning - abrasives in water	Various	Regulation 2.02, section 2.3.13
Heat treating, soaking or case hardening	Various	Regulation 2.02, section 2.3.14
Non-VOC metal or glass washing or drying	Various	Regulation 2.02, section 2.3.15
Residential/domestic equipment	Various	Regulation 2.02, section 2.3.16
Crucible or pot furnaces <450 cu. in.	Various	Regulation 2.02, section 2.3.18
Use of peanut, sunflower, canola, or cottonseed oils	Various	Regulation 2.02, section 2.3.19
Soil or groundwater remediation	Various	Regulation 2.02, section 2.3.20
Indoor PM collectors venting indoors	Various	Regulation 2.02, section 2.3.21
Plastics handling, grinding, and storage	Various	Emissions from these facilities are negligible.
Washer lid sublimation system	Various	Emissions from these facilities are negligible.
Cooling towers	Various	Chromium-based water treatment chemicals are not used; therefore 40 CFR Part 63, Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers does not apply.
R & D facilities	Various	Regulation 2.02, section 2.3.27
Tool and die activities	Various	Emissions from these facilities are negligible.
Salt, sand, and coal piles	Various	Emissions from these facilities are negligible.

1. Insignificant Activities are only those activities or processes falling into the general categories defined in Regulation 2.02, Section 2, and not associated with a specific operation or process for which there is a specific regulation. Equipment associated with a specific operation or process (Emission Unit) shall be listed with the specific process even though there may be no

applicable requirements. Information contained in the permit and permit summary shall clearly indicate that those items identified with negligible emissions have no applicable requirements.

2. Activities identified in Regulation 2.02, Section 2, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the Title V permit.
 - i. No facility, having been designated as an insignificant activity, shall be exempt from any generally applicable requirement which shall include a 20% opacity limit for facilities not otherwise regulated.
 - ii. No visible emission surveys or other monitoring shall be required for facilities designated as insignificant activities.